CLAIMS:

1. A method to treat a cancer that expresses 101P3A11 in a human subject, which method comprises:

administering to a subject in need of such treatment a pharmaceutical composition comprising a carrier suitable for human use and a human unit dose of at least one agent that inhibits the level of or function of 101P3A11 protein (SEQ. ID. NO:__) or which effects destruction of a cell mediated by said 101P3A11 protein.

2. The method of claim 1 wherein said agent is a moiety immunoreactive with 101P3A11 protein.

3. The method of claim 2 wherein said immunoreactive moiety comprises an antibody.

4. The method of claim 2 wherein said immunoreactive moiety comprises a single chain antibody.

5. The method of claim 3 wherein the immunoreactive moiety comprises an antibody conjugated to a cytotoxic agent.

6. The method of claim 3 wherein the antibody is monoclonal.

7. The method of claim 3 wherein the antibody is polyclonal.

8. The method of claim 3 wherein the antibody is humanized.

9. The method of claim 3 wherein the antibody is human.

10. The method of claim 1 wherein said agent comprises a peptide which comprises a cytotoxic T lymphocyte (CTL) epitope that binds an HLA class I molecule in said subject and thereby elicits a CTL response to 101P3A11.

11. The method of claim 10 wherein said peptide further comprises: a helper T lymphocyte (HTL) epitope which binds to an HLA class II molecule in said subject and thereby elicits an HTL response; and/ or another cytotoxic T lymphocyte (CTL) epitope that binds an HLA class I molecule in said subject and thereby elicits a CTL response to 101P3A11.

12. The method of claim 10 further comprising a second peptide which comprises a helper T lymphocyte (HTL) epitope which binds to an HLA class II molecule in said subject and thereby elicits an HTL response and/or another cytotoxic T lymphocyte (CTL) epitope that binds an HLA class I molecule in said subject and thereby elicits a CTL response to 101P3A11.

13. The method of claim 1 wherein said agent comprises a peptide that comprises a helper T lymphocyte (HTL) epitope that binds an HLA class II molecule in said subject and thereby elicits an HTL response.

14. The method of claim 1 wherein said agent is a nucleic acid molecule that expresses a peptide or peptides that stimulate a CTL response to 101P3A11 in said subject.

15. The method of claim 1 wherein said agent is a nucleic acid molecule that expresses a peptide or peptides that stimulate an HTL response to 101P3A11 in said subject.

16. The method of claim 1 wherein said agent is a nucleic acid molecule that expresses a peptide or peptides that stimulate both a CTL and an HTL response to 101P3A11 in said subject.

17. The method of claim 1 wherein said agent is a nucleic acid molecule that expresses a moiety that is immunologically reactive with 101P3A11.

18. The method of claim 17 wherein said moiety is an antibody.

19. The method of claim 18 wherein said antibody is a monoclonal antibody.

20. The method of claim 18 wherein said antibody is a polyclonal antibody.

21. The method of claim 18 wherein said moiety is a single chain antibody.

22. The method of claim 1 wherein said agent comprises a nucleic acid molecule that is complementary to a nucleotide sequence essential for production of 101P3A11.

23. The method of claim 1 wherein said agent comprises a nucleic acid molecule that forms, or expresses a molecule that forms, a triple helix with a nucleotide double helix essential for the production of 101P3A11.

24. The method of claim 1 wherein said agent comprises a ribozyme effective to lyse 101P3A11 mRNA.

25. The method of claim 1 wherein said agent comprises a nucleic acid molecule that expresses a ribozyme effective to lyse 101P3A11 mRNA.

26. The method of claim 1 wherein said carrier comprises a uniquely human carrier.

27. The method of claim 1 wherein said agent is a small molecule.

28. The method of claim 1 wherein said cancer is of the rectum, prostate, colon, kidney, breast, uterus, cervix, stomach, or a metastatic cancer.

29 The method of claim 3 wherein said human unit dose is 500μg - 50mg.

30. The method of claim 3 wherein said human unit dose is 1mg - 1000mg.

31. A method to identify an anticancer agent for use in humans which method comprises:

providing cells which have been modified to contain an expression system for 101P3A11 protein

contacting a first sample of said cells with a candidate compound under conditions wherein the function or production of the 101P3A11 protein is observable;

observing said cells for exhibition of at least one characteristic of said function or production of said 101P3A11 protein;

observing a second sample of said cells which have not been contacted with said candidate compound for exhibition of at least one characteristic of the function or production of the 101P3A11 protein;

comparing the observed characteristic in said first and second sample;

whereby a diminution in the characteristic exhibited by said first sample as compared to said second sample identifies said compound as an anticancer agent for use in humans.

32. The method of claim 31 wherein said function is promotion of colony formation in soft agar and said characteristic is a multiplicity of colonies.

33. The method of claim 31 wherein the function is invasion and metastasis of cancer cells and the observed characteristic is invasive activity in an assay for invasive activity using a basement membrane or analog thereof.

34. The method of claim 31 wherein said function is alteration of the cell cycle and the characteristic is activity in the BrdU assay.

35. The method of claim 31 wherein said function is mediation of ERK phosphorylation by FBS, LPA, GRP or PAF and the characteristic is phosphorylated ERK.

36. The method of claim 31 wherein said function is activation of p38 and the characteristic is phosphorylated p38.

37. The method of claim 31 wherein said function is phosphorylation of tyrosine and the characteristic is phosphorylated tyrosine.

38. The method of claim 31 wherein said function is tumor formation.

39. A method to diagnose cancer in a human subject which method comprises

obtaining a biological sample of tissue suspected of being malignant from said subject;

providing a value of normal expression of the nucleotide sequence encoding 101P3A11 in said tissue;

determining the level of expression of said nucleotide sequence in said tissue sample; and

comparing the level of expression in said tissue sample to the value of expression in the corresponding normal tissue;

whereby an increased level of expression in the sample relative to the level of expression in normal tissue indicates a cancer of the tissue from which said sample is derived.

40. The method of claim 39 wherein said determining comprises:

contacting said sample with a substance which binds to 101P3A11 protein; and

determining the level of binding of said substance to the sample;

whereby the level of binding of said substance to the sample indicates the level of expression of the nucleotide sequence encoding 101P3A11 protein.

41. The method of claim 40 wherein the substance which binds to 101P3A11 protein is an antibody.

42. The method of claim 40 wherein the substance does not bind to said normal tissue and the level of binding in said sample is determined qualitatively.

43. The method of claim 39 wherein said determining comprises

retrieving mRNA from said sample, and

assessing said mRNA for the level of a nucleotide sequence encoding 101P3A11;

whereby the level of said nucleotide sequence encoding 101P3A11 indicates the level of expression of the nucleotide sequence encoding 101P3A11 protein.

44. The method of claim 42 wherein the mRNA is amplified by PCR.

45. The method of claim 42 wherein the nucleotide sequence encoding 101P3A11 is not present in said normal tissue and the level of said sequence in the sample is assessed qualitatively.

46. The method of claim 43 wherein said mRNA, or amplified form thereof, is detected by hybridization to a complementary nucleotide sequence.

47. The method of claim 46 wherein said hybridization is performed on a microarray.

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